



Clean version of all currently pending claims for U.S. Patent Application Serial No. 09/214,881

4. (Twice Amended) A kit for diagnosing an autoimmune disease, the kit comprising:
a first antigen comprising a polypeptide from an HMG-1 family or a fragment of a polypeptide from the HMG-1 family;
a second antigen comprising a polypeptide from an HMG-2 family or a fragment of a polypeptide from the HMG-2 family;
a first component for detecting a first antigen-antibody complex; and
a second component for detecting a second antigen-antibody complex; wherein the autoimmune disease is selected from the group consisting of human systemic lupus erythematosus, Sjögren's syndrome, Behçet's disease, scleroderma, primary biliary cirrhosis, microscopic polyangitis/polyarteritis nodosa, ulcerative colitis, Crohn's disease and autoimmune hepatitis.
6. ~~Amended~~ The kit of claim 4, wherein:
the polypeptide from an HMG-1 family is selected from human, bovine, porcine, chicken, mouse, or rat HMG-1; and
the polypeptide from an HMG-2 family is selected from human, bovine, porcine, chicken, mouse, or rat HMG-2.
7. (Amended) A method for diagnosing an autoimmune disease in a patient, the method comprising the step of detecting one or more antibodies in the patient by contacting a reagent with antibodies from the patient, the reagent comprising at least one polypeptide selected from the group consisting of a polypeptide from an HMG-1 family, a polypeptide from an HMG-2 family, and a fragment of a polypeptide from the HMG-1 family or the HMG-2 family, wherein
the at least one polypeptide reacts with an antibody of an autoimmune disease patient,
and
the autoimmune disease is selected from the group consisting of human systemic lupus erythematosus, Sjögren's syndrome, Behçet's disease, scleroderma, primary biliary cirrhosis, microscopic polyangitis/polyarteritis nodosa, ulcerative colitis, Crohn's disease and autoimmune hepatitis.
9. (Amended) The method of claim 7, wherein:

the polypeptide from an HMG-1 family is human, bovine, porcine, chicken, mouse, or rat HMG-1; and

the polypeptide from an HMG-2 family is human, bovine, porcine, chicken, mouse, or rat HMG-2.

10. (Added) A method of diagnosing an autoimmune disease in a patient, the method comprising:
detecting the presence or absence in the patient of antibodies to HMG-1, HMG-2, or both HMG-1 and HMG-2; and
diagnosing the autoimmune disease based on the antibodies detected, wherein the autoimmune disease is selected from the group consisting of human systemic lupus erythematosus, Sjögren's syndrome, Behçet's disease, scleroderma, primary biliary cirrhosis, microscopic polyangitis/polyarteritis nodosa, ulcerative colitis, Crohn's disease, and autoimmune hepatitis.
11. A method of diagnosing the cause or prognosis of an ulcerative colitis patient, the method comprising contacting antibodies isolated from the patient with a polypeptide selected from an HMG-2 family, or an effective fragment thereof, wherein the polypeptide or fragment reacts with an antibody to HMG-2.
12. The method of claim 11, further comprising contacting antibodies from the patient with a polypeptide selected from an HMG-1 family, or an effective fragment thereof, wherein the polypeptide or fragment reacts with an antibody to HMG-1.
13. The method of claim 11, further comprising determining whether the patient is ANCA-negative or ANCA-positive.
14. (Added) A diagnostic drug for detecting an antibody of autoimmune diseases, wherein:
the drug comprises:
a polypeptide selected from an HMG-1 family;
a polypeptide selected from an HMG-2 family;
a fragment of a polypeptide selected from an HMG-1 family; or
a fragment of a polypeptide selected from an HMG-2 family;
the drug reacts with an antibody of an autoimmune disease patient; and
the autoimmune disease is not ulcerative colitis when the polypeptide or fragment is a neutrophil 28 kDa antigen.

15. (Added) The diagnostic drug of claim 14, wherein the autoimmune disease is rheumatoid arthritis, systemic lupus erythematosus, Sjögren's syndrome, Behçet's disease, scleroderma, primary biliary cirrhosis, microscopic polyangiitis/polyarteritis nodosa, ulcerative colitis, Crohn's disease, or autoimmune hepatitis.
16. (Added) The diagnostic drug of claim 14, wherein the polypeptide is human HMG-1, human HMG-2, bovine HMG-1, bovine HMG-2, porcine HMG-1, porcine HMG-2, chicken HMG-1, chicken HMG-2, mouse HMG-1, mouse HMG-2, rat HMG-1, or rat HMG-2.
17. (Added) The diagnostic drug of claim 15, wherein the polypeptide is human HMG-1, human HMG-2, bovine HMG-1, bovine HMG-2, porcine HMG-1, porcine HMG-2, chicken HMG-1, chicken HMG-2, mouse HMG-1, mouse HMG-2, rat HMG-1, or rat HMG-2.